GOVERNMENT OF INDIA
RAILWAYS
LOK SABHA

UNSTARRED QUESTION NO:1218
ANSWERED ON:02.03.2000
ECONOMICAL VIABILITY OF ELECTRIC AND DIESEL LOCOS
ANNA SAHEB M.K. PATIL

Will the Minister of RAILWAYS be pleased to state:

(a) the relative merit of electrical power and diesel for locos in terms of cost effectiveness;

(b) the total consumption of diesel by Railways for the last three years, yearwise;

(c) whether the electricity driven locos are economical as compared to diesel driven locos; and

(d) if so, the steps taken/proposed to accelerate electrification of rail track to cut on operating cost drastically alongwith the details of action plan for 2000-01 and next five years?

Answer

MINISTER OF STATE IN THE MINISTRY OF RAILWAYS (SHRI DIGVIJAY SINGH)

(a) to (d) A statement is attached.

STATEMENTREFERRED TO IN REPLY TO PARTS (a) TO (d) OF LOK SABHA UNSTARRED QUESTION NO.1218 BY SHRI ANNASAHEB M.K. PATIL TO BE ANSWERED ON 02-03-2000 REGARDING ECONOMICAL VIABILITY OF ELECTRIC DIESEL LOCOS

(a) and (c) The cost effectiveness of a traction system depends on a number of variable factors such as traffic density of a section, grade, relative fuel/energy prices, capital involved, operational and maintenance costs etc. The relative economics of Diesel and Electric locos is worked out in the form of Traction Specific Line Haul Costs in Rupees per thousand gross tonne kilometres. The latest figures of 1997-98 are as under.

Freight Services	Passenger Services
Diesel	80.59	115.18
Electrical	76.61	138.46

(b) Details of consumption of high speed diesel oil by the

Railways in million litres for the last three years is given below.

Year	Traction	Purpose	Non-	Grand	Traction	Total		
	BG		MG		NG		Total	
	Main line & Dep.	Shun ting	Main line & Dep.	Shun ting	Main line & Dep.	Shun ting		
1996-97	1465.51	155.38	200.43	24.16	7.6	6.34	1859.44	30.46	1889.9
1997-98	1507.15	168.00	158.01	27.24	7.4	6.23	1874.14	30.28	1904.4
1998-99	1541.06	167.64	158.28	20.16	7.4	6.17	1900.80	31.63	1932.4

(d) Work of electrification of Railways is considered for sanction in case, on the basis of financial appraisal, the internal rate of return is more than 14%. In some cases it is also justified for operational reasons. The execution of electrification is, however, subject to availability of funds. During 2000-01 and subsequent years, Railway is planning to electrify @ 500 route kilometre subject to availability of funds.